

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated June 15, 2005 has been received and its contents carefully reviewed.

Claim 1 are hereby amended. Accordingly, claims 1-8 and 11-19 are currently pending. Reexamination and reconsideration of the pending claims is respectfully requested.

In the Office Action, claims 1-6, 8 and 11-13 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,236,163 to Maishev ("Maishev"). Claims 7 and 14-19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maishev in view of U.S. Patent No. 5,770,826 to Chaudhari ("Chaudhari").

The rejection of claims 1-6, 8 and 11-13 is respectfully traversed and reconsideration is requested. Claims 1-6, 8 and 11-13 are allowable over the cited references in that each of these claims recites a combination of elements including, for example, "an ion beam source that is a predetermined distance from the substrate and that irradiates the substrate with an ion beam along the ion beam path, wherein the ion beam is discharged from the ion beam source with an incidence angle with respect to the ion beam source that is greater than about 0° and the emitting surface of the ion beam source is inclined to be substantially parallel with the substrate." Maishev does not teach or suggest at least this feature of the claimed invention.

In Figure 10 of Maishev, the ion beam source 702 is inclined, but is not substantially parallel with the substrate as required by the claimed invention. Accordingly, claims 1-6, 8 and 11-13 are allowable over Maishev.

Further, claim 7 which depends from claim 1 is allowable over Maishev as well. The Examiner also cited Chaudhari against claim 7, and Chaudhari fails to cure the deficiencies of claim Maishev, therefore claim 7 is allowable over Maishev and Chaudhari, singly or in combination.

The rejection of claims and 14-19 is respectfully traversed and reconsideration is requested. Claims 14-19 are allowable over the cited references in that each of these claims recites a combination of elements including, for example, "producing ion beams to

simultaneously irradiate the whole substrate with ions, wherein the ion beams strike the substrate with the same incidence angle and energy across the substrate, and wherein the ion beams all travel substantially the same distance and the incidence angle is greater than about 0°." None of the cited references including the Maishev and Chaudhari, singly or in combination, teaches or suggests at least this feature of the claimed invention.

In Maishev as discussed above, the ion beams strike a substrate at different angles. Also, as shown in Figure 10 of Maishev, the ion beams all travel different distances to the substrate. Therefore, Maishev does not teach "wherein the ion beams strike the substrate with the same incidence angle . . . and wherein the ion beams all travel substantially the same distance." Accordingly, claims 14-19 are allowable over Maishev and Chaudhari.

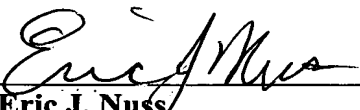
Applicants believe the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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